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(54) Title: METHOD AND APPARATUS FOR SALE AND RESALE OF TICKETS			
(57) Abstract  An apparatus (20) and method for facilitating the sale and resale of tickets includes a plurality of user communication devices, such as telephones (28), terminals (24), computers (30), kiosks (26), etc., connected to a central controller. The central controller maintains a record of all seating, both available and non-available, for venues hosting events, such as sporting events (34), theater presentations (38), concerts (36), conventions, museum openings, rodeos, etc., that can be accessed via the user communication devices to allow the sale of event tickets and the resale of the tickets by ticket owners. In order to prevent unauthorized attendance to a particular event by people who sold their tickets to the events, a ticket scanning and verification system is located at each venue.			

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## METHOD AND APPARATUS FOR SALE AND RESALE OF TICKETS

### Description

#### Technical Field

5 The present invention relates generally to a method and apparatus for facilitating the sale and resale of items over a computer network and, more specifically, to the sale and resale of tickets and entry passes to concerts, sporting events, theater productions, and other events by event promoters, ticket brokers, event venues, and ticket holders.

#### Background Art

10 Tickets for events, such as sporting events, rodeos, museum and gallery openings, concerts, conventions, etc., are typically sold by the venue hosting the event or by ticket brokers or ticket agencies. People often find these avenues of ticket sales inconvenient, however, particularly when the venue is in a large city and it is difficult for people to go to the venue or other ticket seller, when the people are unfamiliar with the venue and thereby unaware of the location of seats, when the people want to buy a ticket shortly before the start time of an event but do not want to travel to the venue  
15 without knowing that a ticket is available, or when a ticket owner is trying to resell a ticket to a particular event. In addition, venues hosting events often wish to prevent scalping of tickets or the resale of tickets at exorbitant prices and may wish to facilitate the resale of tickets by ticket owners as a service to the ticket owners. Furthermore, the resale of tickets also requires that the tickets be transferred from the original ticket owner or seller to the new ticket owner. Printing and distributing a  
20 new ticket for an event when the original ticket is resold, but still in circulation, requires that the venue prevent access to the venue if the original ticket, now invalid due to the distribution of a second valid ticket, is presented by someone to gain admission to the venue.

25 Ticket brokers, sellers, and owners, as well as event venues or sites, would be significantly aided by improving the ability to sell and resell tickets. For example, direct ticket sales to an event would be increased if the ticket owners and purchasers knew there was a way to easily and quickly resell their tickets if they are unable or unwilling to attend the event or if the venue changes. Prior art devices exist which assist in the efficient and convenient sale of tickets to the general public. For example, U.S. Patent No. 5,239,480 issued to *Huegal* discloses a remote automatic ticket dispensing system which can be located remotely from a venue while allowing people to purchase tickets to events  
30 hosted by the venue from the remote location. Unfortunately, the disclosed system does not provide the ability to allow ticket owners to resale their previously purchased tickets in an equally efficient and convenient manner. Furthermore, the disclosed system does not address the problem of security if multiple tickets, only one of which is valid, are presented to gain admission to the venue.

Thus, despite the well developed state of the prior art, there remains a need for a method and apparatus for facilitating the efficient and convenient sale and resale of tickets. In addition, such a system should minimally impact ticket owners or ticket holders and the venues hosting events. Furthermore, it is preferable that such system be as flexible and robust as possible while also detecting counterfeit or forged tickets.

#### Disclosure of Invention

Accordingly, it is a general object of the present invention to provide an apparatus and method for remote selling and purchasing of tickets to events.

It is another general object of the present invention to provide an apparatus and method for facilitating resale of previously purchased tickets by ticket owners.

Still another general object of the present invention is to provide an apparatus and method for facilitating controlled resale of previously purchased tickets by ticket owners.

It is yet another general object of the present invention to provide an apparatus and method for remote sale and resale of tickets by ticket owners.

It is yet another general object of the present invention to provide an apparatus and method for facilitating the sale and resale of tickets while simultaneously preventing the use of counterfeit or forged tickets.

Additional objects, advantages, and novel features of the invention shall be set forth in part in the description that follows, and in part will become apparent to those skilled in the art upon examination of the following or may be learned by the practice of the invention. The objects and the advantages may be realized and attained by means of the instrumentalities and in combinations particularly pointed out in the appended claims.

To achieve the foregoing and other objects and in accordance with the purposes of the present invention, as embodied and broadly described herein, the apparatus of the present invention includes a central controller capable of maintaining ticket availability information and ticket validity information, a communication device in communicative contact with the central controller and capable of accessing the ticket availability information; and a ticket verification system located at the venue and in communicative contact with the controller and capable of accessing the ticket validity information, the ticket verification system capable of determining validity of a ticket presented to gain admittance into the venue.

To achieve the foregoing and other objects and in accordance with the purposes of the present invention, as embodied and broadly described herein, the method of the present invention includes storing status information representative of availability and validity of a first ticket; updating the status information when the first ticket is offered for sale to indicate that the first ticket is available; issuing a

second ticket corresponding to the first ticket if the first ticket is sold; updating the status information if the first ticket is sold to indicate that the first ticket is unavailable; indicating invalidity of the first ticket if the first ticket is presented to gain admission to the venue and if the first ticket had been sold; and indicating validity of the second ticket if the second ticket is presented to gain admission to the venue and the first ticket had been sold.

#### **Brief Description of the Drawings**

The accompanying drawings, which are incorporated in and form a part of the specification, illustrate the preferred embodiments of the present invention, and together with the descriptions serve to explain the principles of the invention.

#### **In the Drawings:**

Figure 1 is a block diagram illustrating the ticket sale and resale facilitating apparatus of the present invention;

Figure 2 is a flow chart of the method of the present invention for reselling tickets;

Figure 3 is a block diagram illustrating the venue verification device of Figure 1;

Figure 4 is a block diagram illustrating an alternative configuration of the venue verification device of Figure 1;

Figure 5 is a block diagram illustrating alternative configurations of the apparatus of Figure 1; and

Figure 6 is another block diagram illustrating further alternative configurations of the apparatus of Figure 1.

#### **Best Mode for Carrying out the Invention**

The ticket sale and resale apparatus 20 is illustrated in Figure 1 and preferably includes a central controller, processor, or computer 22 for controlling or managing the operation of the apparatus 20. The ticket sale and resale apparatus 20 also preferably includes user communicative devices such as a ticket taker or dispenser at a ticket office 24, a kiosk or terminal 26, a telephone 28, a computer 30, or other communications device 32 for allowing users and ticket purchasers, ticket resellers, and ticket brokers to buy, sell, and resell tickets to events hosted or held at venues such as a stadium/arena 34, concert hall 36, civic center 38, theater 40, or other venue 42. Such events held at the venues 34, 36, 38, 40, or 42 can include such things as sporting events, museum or gallery exhibits, rodeos, concerts, plays, conventions, balls, movies, races, controlled attendance meetings or shows, etc. or any other event to which single, multiple, season, or other tickets or passes are sold and used to gain entrance to a venue or event site. The ticket office 24, kiosk 26, telephone, 28, computer 30, and other communications device 32 are connected to the central controller 22 via connections or lines 44, 46, 48, 50, 52, respectively. Similarly, the stadium/arena 34, concert hall 36, civic center 38, theater 40, and

other venue 42 are connected to the central controller 22 via lines 54, 56, 58, 62, 60, respectively. A backup central controller 64 may also be connected to the central controller 22 via the connection or line 66 to provide system redundancy and backup for the ticket sale and resale apparatus 20 if the central controller 22 should become disabled or broken, go off-line, or be otherwise unable to communicate with the user communication devices 24, 26, 28, 30, 32 or the venues 34, 36, 38, 40, 42. Alternatively, the backup central controller 64 may also be connected directly to any or all of the venues 34, 36, 38, 40, 42 and/or to any or all of the communication devices 24, 26, 28, 30, 32. The ticket sale and resale apparatus 20 may also include a ticket validity verification device 67 located at some or all of the venues 34, 36, 38, 40, 42 to prohibit people from using tickets that have been invalidated or otherwise declared unusable through resale from using such tickets to enter the venues 34, 36, 38, 40, 42. The ticket verification device 67 may also create an appropriate signal or alert when a person tries to use a counterfeit, forged, or unpaid for ticket to enter a venue. Each of these components of the ticket sale apparatus 20 will be discussed in more detail below.

A significant advantage of the apparatus 20 of the present invention is that it allows ticket owners to resell their tickets easily and conveniently, while allowing venues hosting events to permit multiple tickets for the same seat to the same event to be sold, even though only one of the tickets will be usable to gain entry to the venue for the event. More specifically, when a ticket owner or seller resells a ticket to an event, the apparatus 20 allows an entirely new ticket to be printed and distributed to the person buying the resold ticket, while allowing only a person having possession of the new ticket to gain admittance to the event, as will be discussed in more detail below. In addition, the ticket sale and resale apparatus 20 allows venues, if desired, to provide such a convenient ticket resale service at no or low cost to the ticket owners, thereby providing a valuable service to ticket owners, as will also be discussed in more detail below. Furthermore, as an extra security measure, the ticket resale apparatus allows for some or all of the tickets presented for entry into a venue to be verified just prior to entry of the ticket holder into the venue.

The central controller 22 preferably includes seating and ticket information for all events to which tickets can be sold using the apparatus 20. For example, the central controller 22 may include memory or information storage system or information storage area 68 in which seating charts or information for each of the venues 34, 36, 38, 40, 42 for each event, event information, and ticket pricing and availability information for each event at each of the venues 34, 36, 38, 40, 42 is stored or accessed. The term "memory" as used herein should be construed broadly and should not be limited to any particular electrical, mechanical, optical, or magnetic embodiment. Memory 68 may be located near to or remote from the central controller 22 and/or may constitute or be a part of online, offline, or near-line information storage for the central controller 22. Tickets can be sold to people remotely who

access the central controller 22 via user communication devices 24, 26, 28, 30, 32, each of which may entail different operational characteristics. For example, the kiosk or terminal 26 may process ticket requests, display venue seating charts and ticket availability, collect money or credit card information as payment for tickets, and distribute or print tickets directly. When a person uses such a kiosk 26 to purchase a ticket, the kiosk 26 will interact with the central controller 22 to check ticket availability and pricing. Alternatively, the kiosk 26 may include its own memory in which such information is stored such that the kiosk 26 need only periodically update its stored information by periodically interacting with the central controller 22. Such a kiosk is disclosed in U.S. Patent No. 5,239,480 issued to *Huegal* and U.S. Patent No. 5,408,417 issued to *Wilder*, the disclosures of both of which are herein incorporated by reference.

The telephone 28 can also be used to access the central controller 22 to facilitate the sale of tickets. In this case, voice or telephone button commands can be used to order tickets and provide payment information. When tickets are ordered over the telephone 28, the tickets will generally be mailed or otherwise delivered to the ticket purchaser. The tickets may also be printed out later at a kiosk or other ticket dispensing or printing device upon the entry of a proper code by a ticket purchaser. Such telephone ordering systems are well known in the prior art and need not be discussed in any further detail for purposes of elaboration or explanation of the present invention.

A computer 30 may act as a dumb or smart remote terminal connected to the central controller 22. When the computer 30 is acting as a smart terminal, the computer 30 may function similar to the kiosk 26 in displaying seating information, ticket price and availability information, etc. and may even print or distribute tickets once payment has been made or payment information has otherwise been provided. When the computer 30 is acting as a dumb terminal, the computer may still display seating information, ticket pricing and availability information, etc., but the computer 30 will probably not be capable of directly printing or distributing tickets.

In addition to the kiosk 26, the telephone 28, and the computer 30, any other communication device 32 may be connected to the central controller 22. Other communication devices can include, for example, telecommunication display systems of the type disclosed in U.S. Patent No. 5,164,982 issued to *Davis*.

The ticket office 24 is generally representative of a ticket broker's or ticket seller's location in which a person other than the ultimate ticket purchaser may assist the ticket purchaser in reselling, selecting, or purchasing a ticket. The ticket office 24 may include any or all of the communication devices 26, 28, 30, 32 discussed previously above.

In order to facilitate the resale of tickets to events by ticket owners or ticket holders, the apparatus 20 implements a preferred method 90, as illustrated in Figure 2. In the preferred method 90

of the present invention, a ticket for a specific event at a specific venue is first purchased during step 92 by a ticket owner. The ticket may be for any kind of event such as, for example, a single performance event, such as a one-time only concert, a multiple performance event, such as a play, or an event that is part of a ticket package, such as season tickets for football games, plays, or concerts. The tickets could also be train, ship, or airplane tickets, ski lift tickets, lottery tickets, or other recreational or travel related tickets or passes. The apparatus 20 and method 90 of the present invention can also be used to help ticket holders or owners resell or reschedule their tickets if an event is canceled or otherwise changed or if the venue is changed.

After a ticket owner purchases a ticket or group of tickets during step 92, the ticket owner may desire to resell a specific original ticket or group of original tickets to a particular event. To facilitate the resale of the original tickets, the ticket owner contacts or communicates with the central controller 22 during step 94. The ticket owner may contact or communicate with the central controller 22 from any of the user communication devices 24, 26, 28, 30, 32. Regardless of the type of communication device used by the ticket owner or seller to contact the central controller 22 during the step 94, after interactive contact or communication between the ticket owner and the central controller 22 is established during the step 94, the ticket owner or seller provides ticket information to the central controller 22 during step 96 regarding the original ticket or tickets the ticket owner or seller wishes to sell or resell.

In order to allow verification of the ticket information provided to the central controller 22 during the step 96, a number of security measures can be used. For example, each ticket may include a unique identification number or other indicia signifying the venue, date, and time associated with the event. Alternatively, or in addition, the central controller 22 may include unique identification numbers or other indicia associated with each possible ticket owner to allow the ticket owner to be identified. As another alternative, the user communication device from which the ticket owner is communicating with the central controller 22 during the step 96 may include a scanning, reading, or imaging device into which the ticket(s) being sold can be inserted or by which the ticket(s) can be scanned or read, thereby allowing the user communication device to directly verify or check the validity of the ticket and the event and associated venue to which the ticket pertains.

After the ticket information is provided to the central controller 22 by the ticket owner during the step 96, the central controller 22 preferably, but optionally, invalidates the current or original ticket during the step 98 such that it cannot be used to gain entry into the venue hosting the particular event. The step of invalidating the original ticket is particularly important when the user communication device from which the ticket owner is communicating with the central controller 22 does not take the current or original ticket from the ticket owner or seller. More specifically, if the original ticket being



sold by the ticket owner or seller is not inserted into and kept by the user communication device, such as when the user communication device is a telephone or dumb terminal, the apparatus 20 preferably invalidates the current or original ticket in its ticket database or other information memory or storage system 68 such that no more than one valid ticket for each seat for each specific event exists at any one time, as will be discussed in more detail below. If the user communication device used by the ticket owner to contact the central controller 22 does not accept and keep the original ticket to be resold, the central controller 22 indicates the invalidity of the current ticket by updating the information stored in the memory or database 68 of the central controller 22.

After the ticket being resold is invalidated during the step 98, the ticket owner provides ticket resale information and payment information to the central controller 22 during the steps 100 and 102, respectively. The resale information provided by the ticket owner to the central controller 22 during the step 100 may include the rules or option information by or under which the ticket owner wishes to resell the ticket. For example, the ticket owner may wish to designate the price at which the ticket will be resold, price decreases for the ticket that the central controller 22 may implement if the ticket remains unsold, the lowest price that will be taken for the ticket by the ticket owner, the time period during which the ticket may be resold by the central controller 22, etc. The payment information provided by the ticket owner to the central controller 22 during step 102 indicates how the ticket owner wishes to be repaid if the ticket is resold. For example, the ticket seller may want to have a check sent for payment, a venue credit, a credit card credit, etc. The ticket repayment information may also include any other information needed or desired by the central controller 22, such as name, address, and telephone information, credit card information, etc.

After the central controller 22 has obtained all of the information necessary or desired to resell a specific original ticket or group of tickets to a specific event or group of events, the central controller 22 updates ticket availability information stored in the memory 68 of the central controller 22 during step 104 and attempts to resell the original ticket during the step 106. The step 104 may be combined with, or considered the same as in some instances, the invalidate ticket step 98, particularly since information regarding to the availability of tickets is also representative of, or related to, information regarding the invalidity of tickets. For example, a ticket will generally not be available and invalid at the same time. Reselling of an original ticket during the step 106 may proceed in a similar manner to the original sale of the original ticket as previously described above.

During the step 106, the central controller 22 will either resell the original ticket or fail to resell the original ticket proffered by the ticket owner or other ticket seller during step 96. In its attempt to resell a ticket, the central computer 22 may use the rules or other ticket resale procedures entered by the ticket seller during the step 100. If the central controller 22 fails to resell the original ticket, the central

controller 22 preferably contacts the ticket owner or seller during step 108 to inform the ticket owner or seller that the ticket remains unsold, thereby allowing the ticket owner or seller to use the original ticket. If the original ticket remains unsold and the original ticket was not taken from the ticket seller or owner by a user communication device during the step 98, the central controller 22 also preferably  
5 validates, sanctions, or otherwise legalizes the original ticket in its database or other information memory or storage system during step 110 so that the ticket owner or seller can use the original ticket already in his or her possession to gain entry into the venue hosting the event. If the user communication device used by the ticket owner or seller during the step 96 did take the ticket from the original ticket owner or seller during the step 96, the central controller 22 preferably distributes or at  
10 least authorizes the distribution of a new ticket to the ticket owner or seller during step 112 that corresponds with the original ticket. The new ticket may be redistributed to the ticket owner or seller via mail, print out at a kiosk or terminal 26, or through a conventional will-call office at the venue hosting a specific event. After an original ticket is revalidated during the step 110 or distributed during the step 112, the original ticket is no longer available for sale or resale via the central controller 22 and  
15 the central controller 22 updates the ticket availability information stored in the memory 68 in the central controller 22 during the step 114 to indicate that the original ticket is no longer available for purchase or resale.

During the time that an original ticket is offered for sale via the central controller or manager 22, the ticket owner or seller may also call in and cancel the request to sell the original ticket. In this  
20 circumstance, the central controller 22 preferably proceeds in a manner similar to routine followed if the ticket had not been sold. If desired, a processing fee may be charged to the ticket owner or seller.

If the central controller 22 does resell an original ticket during the step 106, the central controller 22 preferably contacts the ticket owner or seller during step 116 to inform the ticket owner or seller that the original ticket has been resold. In addition, the central controller 22 may receive payment  
25 information during the step 106 from the ticket purchaser, such as credit card information, or otherwise instruct the ticket purchaser how to make payment for the ticket. The central controller 22 may then make payment or authorize payment to the ticket owner or seller during step 118 in the manner specified by the ticket owner or seller during the step 102. If desired, a processing fee can be deducted from the monies paid to the ticket owner or seller. After resale of the ticket by the central controller 22  
30 during step 106, the central controller 22 distributes or authorizes the distribution of a corresponding new ticket to the ticket purchaser via mail, remote kiosk or other remote ticket dispenser, venue will-call office, etc. during step 120 and updates the ticket availability and validity information during the step 114 in the manner previously discussed above to indicate the invalidity and unavailability of the

original ticket that may still be in the possession or under the control of the original ticket owner or seller.

5 In order for the preferred method 90 to insure that no more than one ticket for each seat or position is available for any one specific event, or that no duplicate tickets exist for the event, the method 90 preferably requires the ticket owner or seller to turn in the original ticket being resold during step 98, as previously described above. If the ticket owner does not or cannot turn in the original ticket during the step 98, the method 90 can use several alternative steps to prevent two corresponding tickets for the same event from being used to gain entry into a venue. For example, the ticket owner may be required to turn in the original ticket prior to receiving payment during the step 118 for the resale of the original ticket. As a more precise procedure, the method 90 may include the optional update venue verification system step 122 which allows ticket validity to be verified at a venue when ticket holders are presenting tickets for entry into the venue for a specific event, as will be discussed in more detail below.

15 If the update venue verification system step 122 is used, a ticket validity verification system 67 is preferably included in the ticket resale apparatus 20 to allow entry into a particular venue by a person with a valid ticket and to deny entry into the venue by people with an invalid or counterfeit ticket. During completion of the step 122, which may occur after each resale of an original ticket or only once prior to entry of people into a particular venue for a particular event, status information, such as ticket validity information and/or ticket availability information, is stored or otherwise maintained or managed by the central computer 22, is delivered to the ticket validity verification system 67 associated with the venue. The ticket validity information preferably includes information regarding which original and/or new tickets for a particular event are valid and which original and/or new tickets for a particular event are invalid. When a person presents a ticket to gain entry to a particular venue for a particular event, the ticket verification system 67 determines the validity of the ticket presented, as will be discussed in more detail below. Thus, during update venue verification system step 112, the central controller or computer 22 updates a database or other memory or information storage system, which may be located in or comprise the memory 68, regarding each original ticket that has been resold, thereby preventing the existence of multiple tickets for the same seat for an event from allowing multiple people into the event. The status information may include many other pieces of information such as, for example, information used to detect counterfeit tickets, information relating to the particular coding or encryption scheme associated with the tickets, ticket image information, information related to the ticket owner, seller, or purchaser, ticket price information, ticket sale and/or resale information, etc.

As previously discussed above, if the ticket verification step 122 is required for a particular application of the method 90 of the present invention, each venue 34, 36, 38, 40, 42 may include a ticket validity verification system 67 to determine the validity of tickets used to gain entrance to the venue for a specific event. More specifically, the ticket verification system 67 preferably includes a venue controller 124 connected to scanners, imagers, or ticket readers 126, 128, 130. The venue controller can comprise a single computer or other appropriate device or a plurality of computers or other appropriate devices. The venue controller 124 is preferably temporarily or permanently connected to or in communication with central controller 22 prior to admittance of people into the venue, such as the venue 34, so that ticket validity information can be downloaded to the venue controller 124. The venue controller 124 may include memory, database, or storage system 132 which stores information regarding ticket validity generated during application or use of the method 90. As people enter a particular venue, their tickets are scanned or read by the scanners or ticket readers 126, 128, 130 which verify the validity of the each person's ticket and allows or denies them entry into the venue depending on the validity of the ticket. For example, as a ticket is scanned by scanner 126, the scanner preferably sends ticket information cleared by the scanner from the ticket to the venue controller 124 and/or the central controller 22 which verifies the validity or invalidity of the ticket presented and sends an appropriate signal or alert back to the scanner 126 regarding the validity or invalidity of the ticket. The verification of a ticket may be done by matching or comparing the ticket identification information with the information or database stored in or by the venue controller 124 or by matching or comparing the ticket identification information with the ticket validity information kept in or by the central controller 22. Alternatively, a scanner, such as the scanners 128, 130, may include its own memory, such as the memories 134, 136, in which the ticket validity information is stored and periodically updated by the venue controller 132 or the central controller 22. A distributed memory system allows ticket verification to be completed more quickly, thereby minimizing delay of people into the venue. If a ticket is deemed to be invalid, a person denied entry into a venue can be directed to the appropriate ticket window or office to discuss the matter further.

It is preferable that tickets being used with the ticket verification system 67 be easy to scan, image, or read while providing protection against their counterfeiting or forgery. Tickets may be magnetically coded, optically coded, bar coded, color coded, holographically coded, alphanumerically coded, encrypted, etc., so long as the appropriate or desired levels of ease of use, consistency, and forgery protection are maintained. The signals transmitted between the scanners 126, 128, 130 and the venue controller 124 may also be encrypted for additional security. For example, methods and apparatus such as those described in U.S. Patent No. 4,095,824 issued to *Bachman*, U.S. Patent No. 5,192,854 issued to *Counts*, U.S. Patent No. 4,299,637 issued to *Oberdeck et al.*, and U.S. Patent

No. 4,191,376 issued to *Goldman et al.*, U.S. Patent No. 3,890,599 issued to *Simjian*, and U.S. Patent No. 4,150,781 issued to *Silverman et al.* may be used to create and scan, image, or read tickets.

The scanners 126, 128, 130 may be handheld by ticket takers or fixed, such as in a turnstile type system wherein the ticket is manually or mechanically fed before or into a scanning device and the turnstile allows rotation only upon receipt of a signal from the venue controller 124 that the ticket is valid. In addition, some or all of the scanners, 126, 128, 130 can be connected to the venue controller 124 directly, in a wireless or cellular fashion, as part of a local, wide, metropolitan, or campus area network, or other appropriate communication means. The scanners or ticket readers 126, 128, 130 may also be daisy chained together, electrically and/or mechanically, as best illustrated in Figure 4.

The scanners can be magnetic readers, bar code readers, optical readers or imagers, etc., depending on how the ticket to be verified is prepared, encoded, and used. For example, the devices disclosed in U.S. Patent No. 4,613,747 issued to *McCarty*, U.S. Patent No. 4,126,780 issued to *Rosenthal et al.*, U.S. Patent No. 4,109,238 issued to *Creekmore*, U.S. Patent No. 3,829,661 issued to *Silverman*, U.S. Patent No. 4,496,830 issued to *Yoshihara et al.*, and U.S. Patent No. 4,103,150 issued to *von Ballmoos* may be used to create or scan tickets to be verified. The scanners 126, 128, 130 may access the venue controller 124 sequentially or simultaneously to determine ticket validity.

The apparatus 20 can take many configurations. For example, referring again to Figure 1, the lines or connections 44, 46, 48, 50, 52 connecting the user communication devices 24, 26, 28, 30, 32, respectively, to the central controller 22 may be either temporary or permanent telephone or trunk line connections, satellite or microwave link, dedicated or dial-up connections, a local or wide area network connection, or a fiber optic, ISDN, TI, radio, cable, cellular, wireless, or other suitable connection. Similarly, the lines or connections 54, 56, 58, 60, 62 connecting the venues 34, 36, 38, 40, 42, respectively, to the central controller 22 may also be either temporary or permanent or trunk telephone line connection, satellite or microwave link, dedicated or dial-up connections, local or wide area network connection, or a fiber optic, ISDN, TI, radio, cable, cellular, wireless or other suitable connection. Such data communication and telecommunication technologies are well known in the art and need not be discussed in any further detail for purposes of explanation or elaboration of the apparatus 20 or method 90 of the present invention.

Now referring to Figure 5, user communication devices and event venues may be connected directly to the central controller 22 or through intermediate computer networks 150, 151 to the central controller 22. More specifically, user communication devices such as, for example, the kiosk 26 and the telephone 28, may be connected directly to the central controller 22 via the lines or connections 46, 48, respectively. Other user communication devices such as, for example, kiosks 152, 154, 156, a ticket office 156, computer 30, and other communications device 32 may be connected via the computer

network 150 to the central controller 22. Similarly, event venues, such as the stadium/arena 34, may also be connected directly to the central controller 22 as previously discussed above. Alternatively, event venues, such as the concert hall 36, civic center 38, and other venue 42, may be connected via the computer network 151 to the central controller 22. The computer networks can be or may include both wide area networks and local area networks. The back-up central controller 64 can also be connected to both computer networks 150, 151 to provide robustness and redundancy to the apparatus 20, while allowing access to the back-up central controller 64 from user communication devices and event venues. If desired, user communication devices, such as the kiosk 152, can be both directly connected to the central controller 22 and to the computer network 150. Similarly, event venues, such as the stadium/arena 34, can be both directly connected to the central controller 22 and the computer network 151. Providing a direct connection to the central controller improves the speed of data communication to and from the central controller 22, while providing connection to the central controller 22 via the computer networks 150, 151 improves back-up and redundancy capabilities and allows networked connection to back-up central controllers, such as the back-up central controller 64.

Further alternatives to the configuration of the apparatus 20 provided in Figure 1 are illustrated in Figure 6. Now referring to Figure 6, kiosk 200, telephone 202, and computer 204 are connected to a remote controller 206, to which venues such as a stadium/arena 208 and a civic center 210 are also connected. The remote controller 206 may also be connected to back-up central controller 64. Similarly, kiosk 212, telephone 214, and computer 216 may also be connected to a remote controller 218, to which stadium/arena 220 and concert hall 22 are also connected.

The remote controllers 206, 218 are connected to the central controller 22 via the lines or connections 224, 226, respectively, which can provide centralized management and control. The remote controllers 206, 218 may be located in geographically disparate places from each other and the central controller 22 and may also operate in a fashion similar to the central controller 22 in their respective geographic locations. As a result, the remote controllers 206, 218 store ticket pricing and availability information for the venues located in their geographic areas. Alternatively, the central controller 22 may store all of the ticket pricing and availability information and be accessed by the remote controllers 206, 218 when they are themselves accessed by user communication devices.

The central controller 22 allows user communication devices in one geographic location, such as the kiosk 212 or the telephone 214, to purchase and resell tickets located at geographically disparate venues such as the stadium/arena 208. By allowing the remote controllers 206, 218 to operate independently and remotely from each other, however, the operational efficiency of the apparatus 20 may be increased, particularly if most of the tickets sold are for events geographically located around the remote controllers 206, 218. In addition, by allowing remote access to remote controllers 206, 218

from user communication devices, the sale and resale of tickets across large geographic areas can be increased. Remote controllers, such as the remote controllers 230, 232, may also be connected via a computer network 234 to allow the sale and resale of tickets for events held at venues 236, 238, 240, 242, 244, 246 from user communication devices 248, 250, 252, 254.

5           The ticket sale and resale apparatus 20 of the present invention may be used by venues or ticket brokers or sellers to make money or used by the venue or ticket broker as a free or low cost service to ticket holders or ticket owners. For example, communication to and from the central controller 22 from and to the venues 34, 36, 38, 40, 42 and/or the ticket office 24 or communication devices 26, 28, 30, 32 may be fee-based or non-fee based. Thus, a ticket office 24 may be able to  
10       communicate with the central controller 22 free of charge, such as via a 1-800 or local telephone number, while a communication via a telephone 28 or the computer 30 to and from the central controller 22 may be fee based. Such fee based communication could use a 1-900 telephone number or other suitable fee charging method. As a service to ticket holders, the central controller 22 may allow them to access the central controller at no or low cost, while charging more for people accessing the  
15       central controller 22 to check the availability of tickets or to actually purchase tickets. As an alternative to the revenue generating methods discussed above, the central controller 22 may charge a processing fee to each person trying to sell a ticket and/or to each person buying a ticket via access to the central controller 22. As a further alternative, the method 90 may be used only with people who have season tickets or who have payed an extra fee when purchasing their tickets to have the ability to  
20       resell them conveniently through the ticket resale system 20. The central controller 22 may charge a fee to either the ticket seller or ticket purchaser any time after the ticket is resold. Furthermore, the central controller 22 may charge a processing fee to the ticket seller even if a ticket is not sold or to the ticket purchaser just for browsing a description or list of available tickets. Either or both of these steps can be added to the method 90 as desired by a user of the method 90. As a further alternative, the central  
25       computer 22 may delay paying the ticket seller until after verifying that payment by the ticket purchaser has been received or until after the end of some other designated time period.

          The foregoing description is considered as illustrative only of the principles of the invention. Furthermore, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and process shown and described above.  
30       Accordingly, all suitable modifications and equivalents may be considered as falling within the scope of the invention as defined by the claims which follow. For example, the steps 96, 98, 100, 102, and 104 may be done in any order and some or all of them may be combined. The steps 98 and 104 may be combined into one step or considered as one step, particularly if the ticket validity information and the ticket availability information are the same or essentially the same information. As another example,

each of the pairs of steps 110 and 114, 120 and 114, and 112 and 114 may be done in reverse order. In addition, the steps 116, 118, 120, and 114 may be done in any order desired. The steps 108 and 116 can also be considered as a single step and can be performed immediately before or after step 114. As a further example, the computer networks 150, 151 can be combined into a single network or separated  
5 into many individual networks, depending on the number of connections to the central controller 22, the desired back-up and redundancy for the apparatus 20, or the geographical locations of the central controller 22, the user communication devices, and the venues. In yet another example, the venue controller 124 may be geographically remote from the the venues and the scanners 126, 134, 136. Furthermore, if scanners or ticket readers having memory are used, such as the scanners 134, 136, or if  
10 a high speed connection can be created between scanners and the central controller or manager 22, a separate venue controller 124 may not be necessary and the scanners can communicate directly with the central controller 22. The central controller 22 may consist of a single computer or a system or network of computers or other devices. Likewise, the memory or database 68 may be located in one place or may consist of a plurality of information or data storage devices, memory devices, or  
15 computers. Therefore, the memory or information storage system 68 can be located separate and distinct from the remainder of the central controller 68.



**Claims**

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

1. An apparatus for facilitating the sale and resale of tickets and controlling entry into a  
5 venue, comprising:
  - a central controller capable of maintaining ticket availability information and ticket validity information;
  - a communication device in communicative contact with said central controller and capable of accessing said ticket availability information; and
  - 10 a ticket verification system located at the venue and in communicative contact with said controller and capable of accessing said ticket validity information, said ticket verification system capable of determining validity of a ticket presented to gain admittance into the venue.
2. The apparatus of claim 1, wherein said ticket verification system includes a venue controller having a memory capable of storing said ticket validity information.
- 15 3. The apparatus of claim 2, wherein said ticket verification system includes a scanner capable of scanning said ticket and communicating identification features of said ticket to said venue controller.
4. The apparatus of claim 1, wherein said ticket verification system includes a scanner capable of scanning said ticket and initiating communication of identification features of said ticket to  
20 said central controller.
5. The apparatus of claim 1, wherein said communication device is capable of scanning a ticket and communicating identification features of said ticket to said central controller.
6. The apparatus of claim 4, wherein said communication device is capable of dispensing a ticket.
- 25 7. The apparatus of claim 1, including a back-up central controller communicable to said communication device and the venue.
8. A method for facilitating sale of a ticket for entrance to a venue, comprising the steps of:
  - storing status information representative of availability and validity of a first ticket;
  - 30 updating said status information when said first ticket is offered for sale to indicate that said first ticket is available;
  - issuing a second ticket corresponding to said first ticket if said first ticket is sold;
  - updating said status information if said first ticket is sold to indicate that said first ticket is unavailable;

indicating invalidity of said first ticket if said first ticket is presented to gain admission to the venue and if said first ticket had been sold; and

indicating validity of said second ticket if said second ticket is presented to gain admission to the venue and said first ticket had been sold.

5        9.        The method of claim 8, including the step of updating said status information to indicate that said first ticket is unavailable and valid if said first ticket has not been sold.

10       10.       The method of claim 8, including the step of detecting ticket identification information from said first ticket and comparing said ticket identification information of said first ticket to said status information prior to said step of indicating invalidity of said first ticket if said first ticket is presented to gain admission to the venue.

11.       The method of claim 10, including the step of transmitting at least a portion of said status information to the venue prior to said detecting of said ticket identification information from said first ticket.

15       12.       The method of claim 8, including the step of detecting ticket identification information from said second ticket and comparing said ticket identification information of said second ticket to said status information prior to said step of indicating validity of said second ticket if said first ticket is presented to gain admission to the venue.

20       13.       The method of claim 12, including the step of transmitting at least a portion of said status information to the venue prior to said detecting of said ticket identification information from said second ticket.

25       14.       The method of claim 12, wherein said step of storing said status information of said first ticket includes storing at least a portion of said status information in a controller remote from the venue, and including the step of transmitting said ticket identification information of said second ticket to said controller prior to said step of comparing said ticket identification information of said second ticket to said portion of said status information.

15.       The method of claim 14, including the step of transmitting a signal from said controller to the venue indicating that said second ticket is valid.

30       16.       The method of claim 8, including the step of transmitting of at least a portion of said status information to a storage device located at the venue after each occurrence of said step of updating said status information if said first ticket is sold to indicate that said first ticket is unavailable.

17.       The method of claim 8, including the step of offering said first ticket for sale according to at least one designated rule.

18.       The method of claim 8, including the step of updating said status information when said first ticket is offered for sale to indicate that said first ticket is invalid.

19. The method of claim 8, including the step of updating said status information when said first ticket is sold to indicate that said first ticket is invalid.

20. A method for facilitating sale by a ticket for entrance to a venue, comprising the steps of:

5 storing information regarding availability and validity of a first ticket;  
updating said availability information when said first ticket is offered for sale to indicate that said first ticket is available;  
issuing a second ticket corresponding to said first ticket if said first ticket has been sold;  
10 updating said availability information if said first ticket is sold to indicate that said first ticket is unavailable;  
updating said ticket validity information if said first ticket is sold to indicate that said first ticket is invalid; and  
indicating invalidity of said first ticket if said first ticket is sold and said first ticket is presented to gain admission to the venue.

15 21. The method of claim 20, including the step of offering said first ticket for sale according to at least one rule.

22. The method of claim 20, including the step of updating said ticket validity information when said first ticket is offered for sale to indicate that said first ticket is invalid.

20 23. The method of claim 20, including the step of indicating validity of said second ticket if said second ticket is presented to gain admission to the venue.

24. The method of claim 20, including the step of updating said ticket validity information when said first ticket is sold to indicate that said first ticket is invalid.

25 25. The method of claim 20, including the step of updating said ticket validity information if said first ticket is not sold to indicate that said first ticket is valid.

26. The method of claim 25, including the step of indicating validity of said first ticket if said ticket is not sold and said first ticket is presented to gain admission to the venue.

27. The method of claim 20, including the step of indicating invalidity of a counterfeit ticket if said counterfeit ticket is presented to gain admission to the venue.

30 28. The method of claim 20, including the step of allowing a potential ticket purchaser to access said ticket availability information.

29. The method of claim 28, including the step of charging said ticket purchaser a fee for accessing said ticket availability information.

30. The method of claim 20, including the step of charging a fee when said second ticket is issued.

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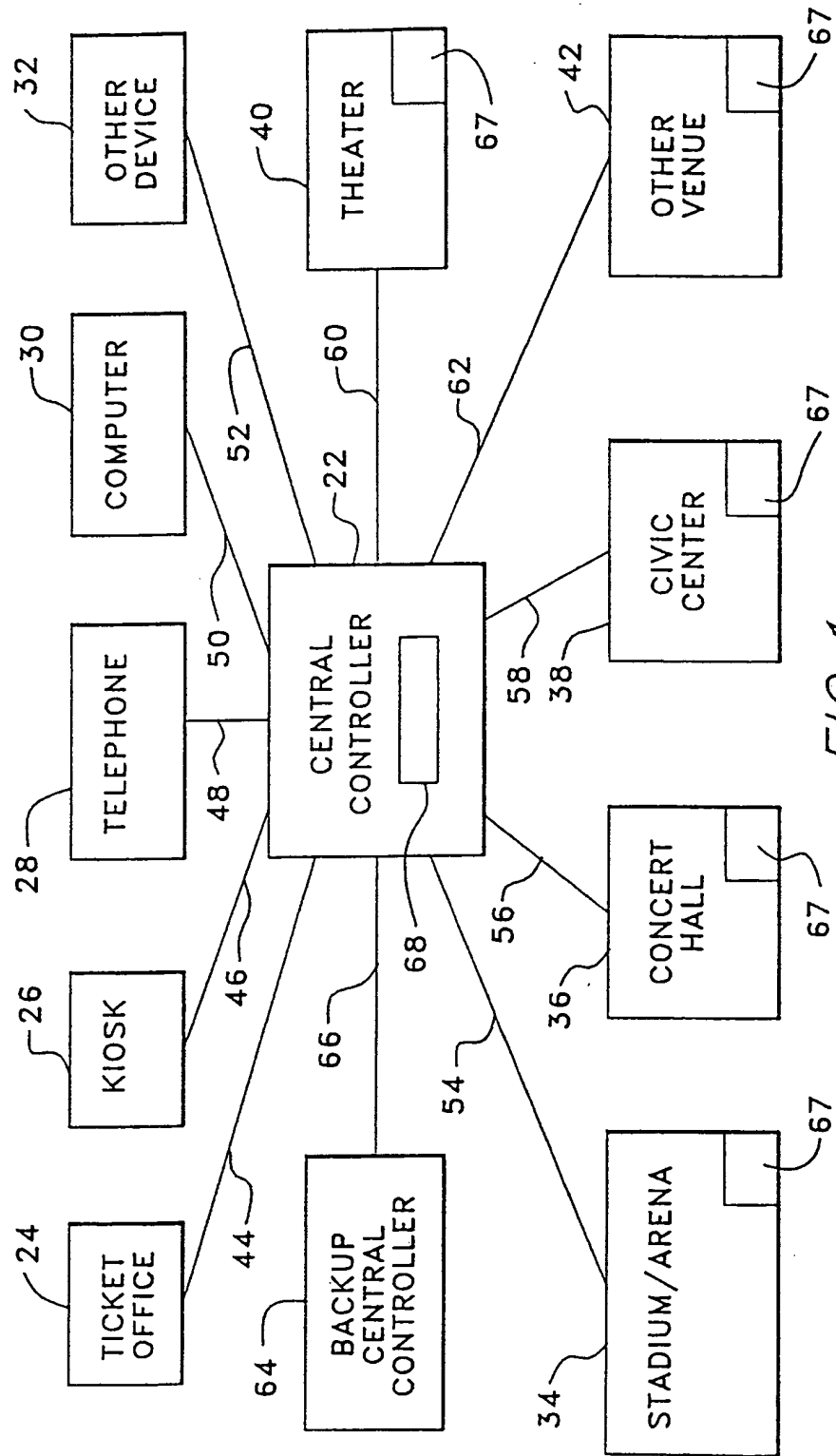


FIG. 1

2/5

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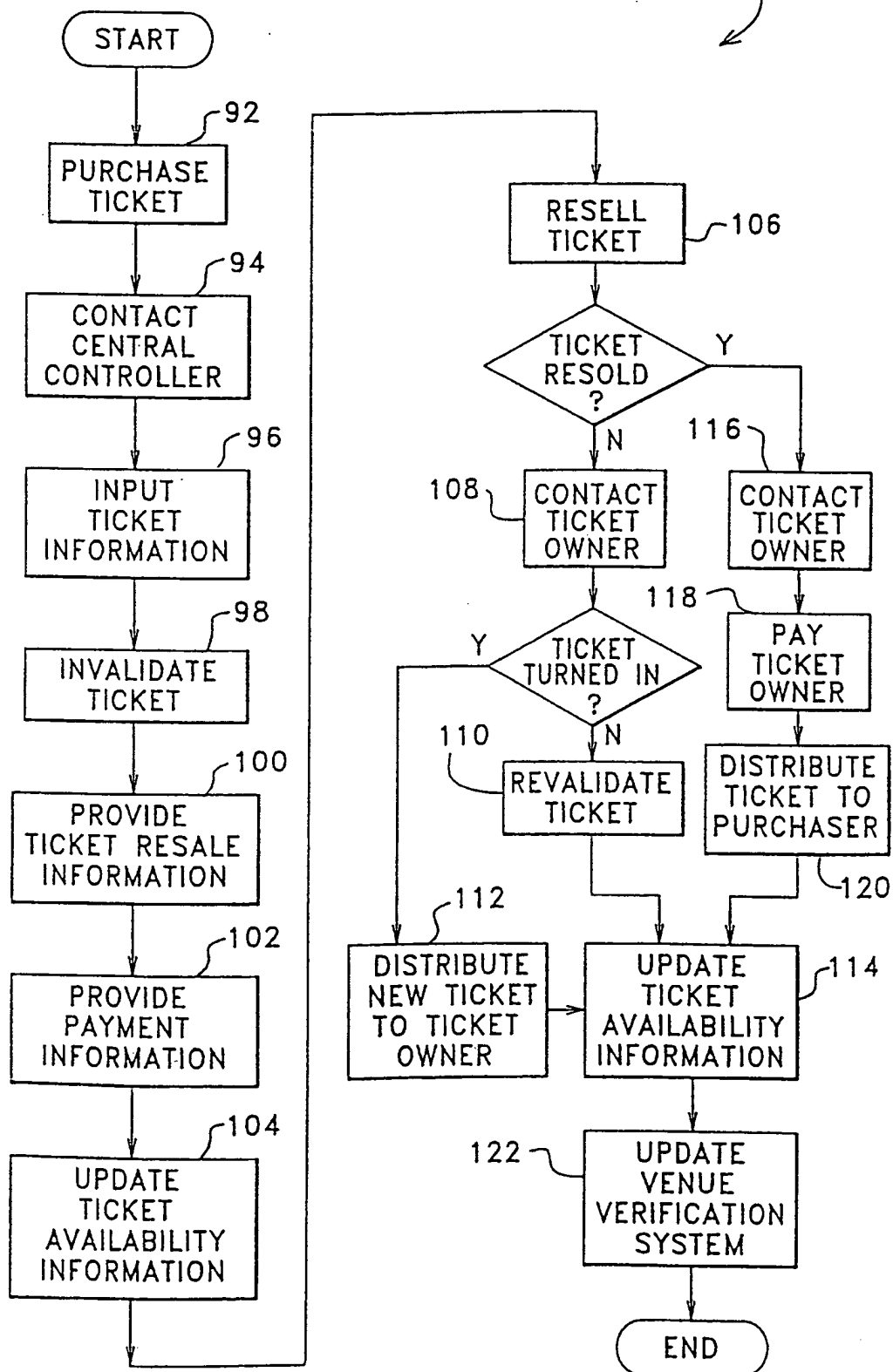


FIG. 2  
SUBSTITUTE SHEET (RULE 26)

3/5

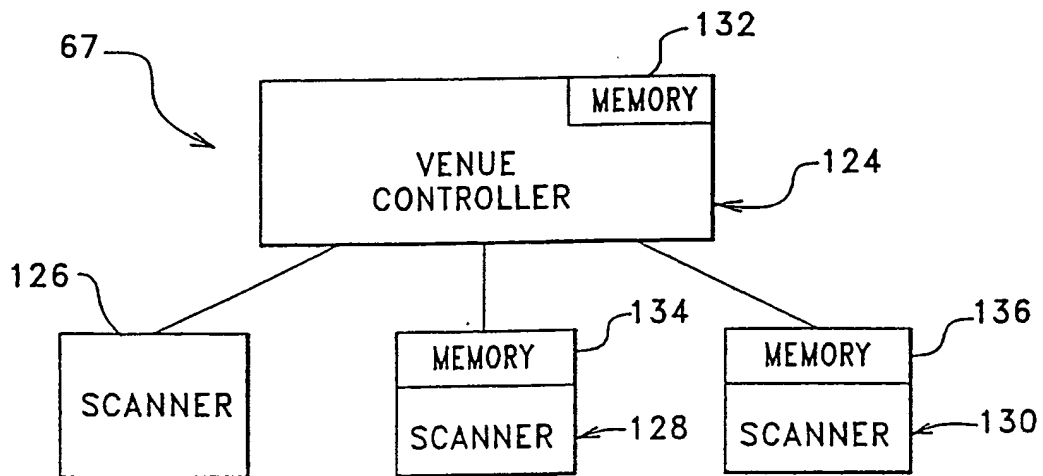


FIG. 3

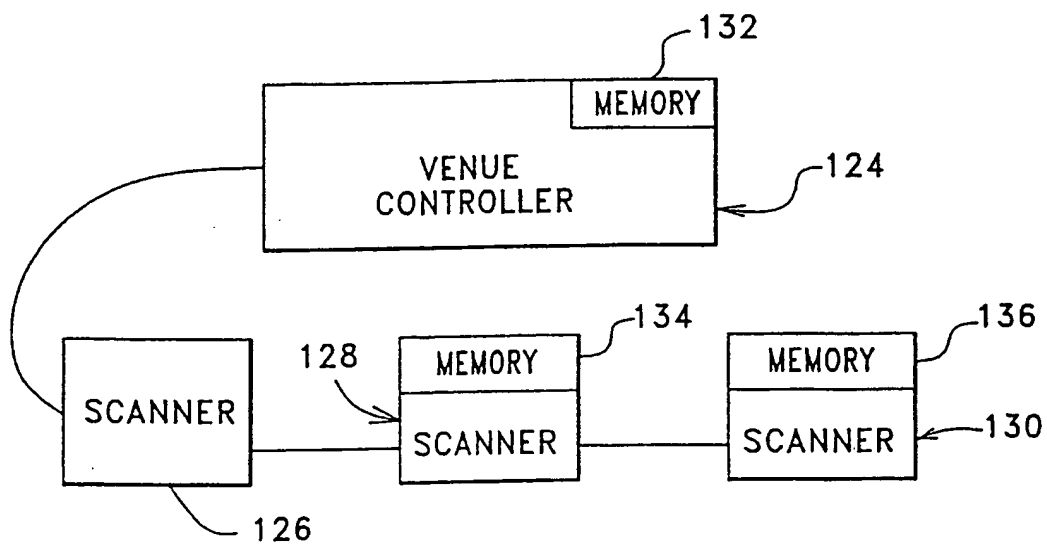


FIG. 4

4/5

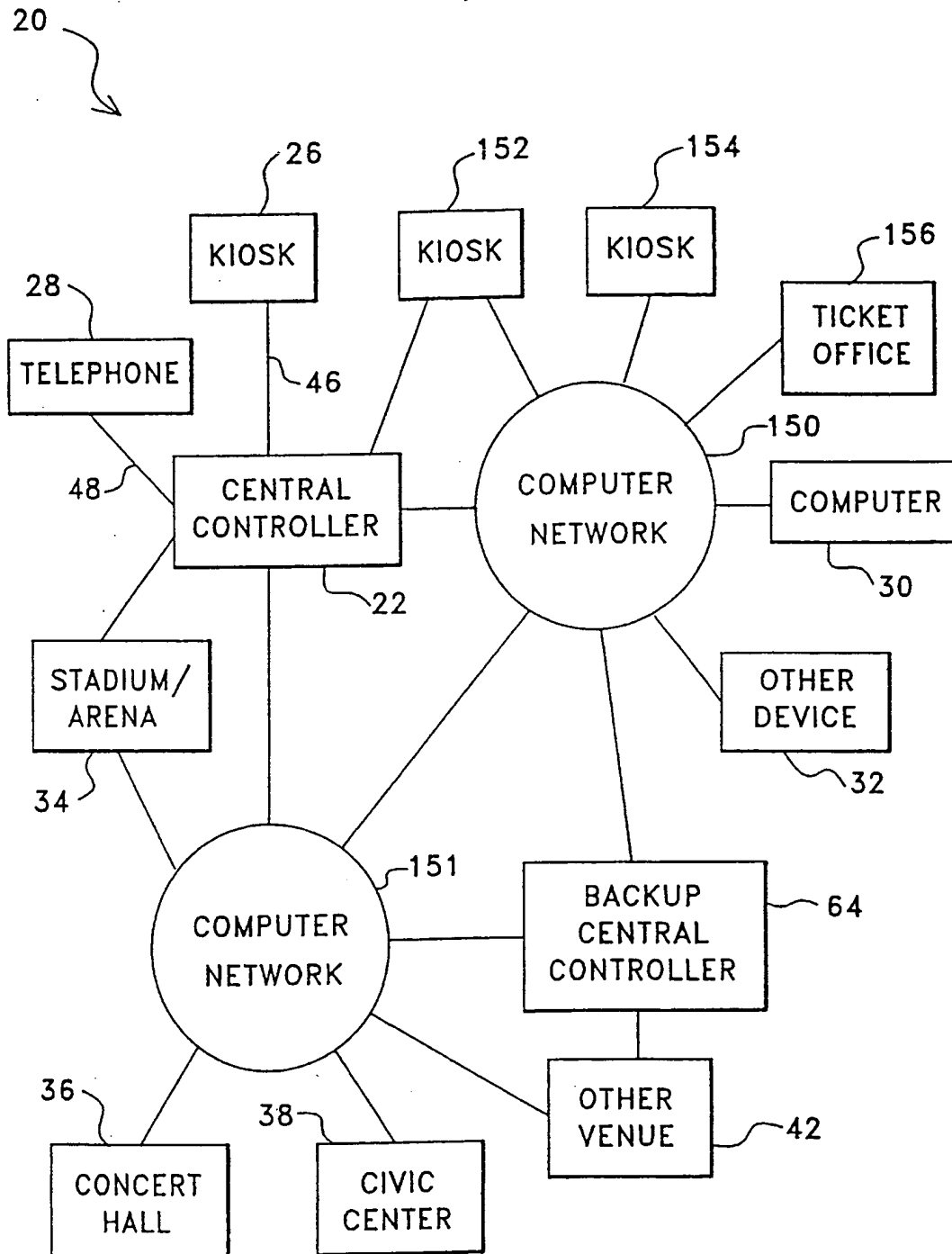
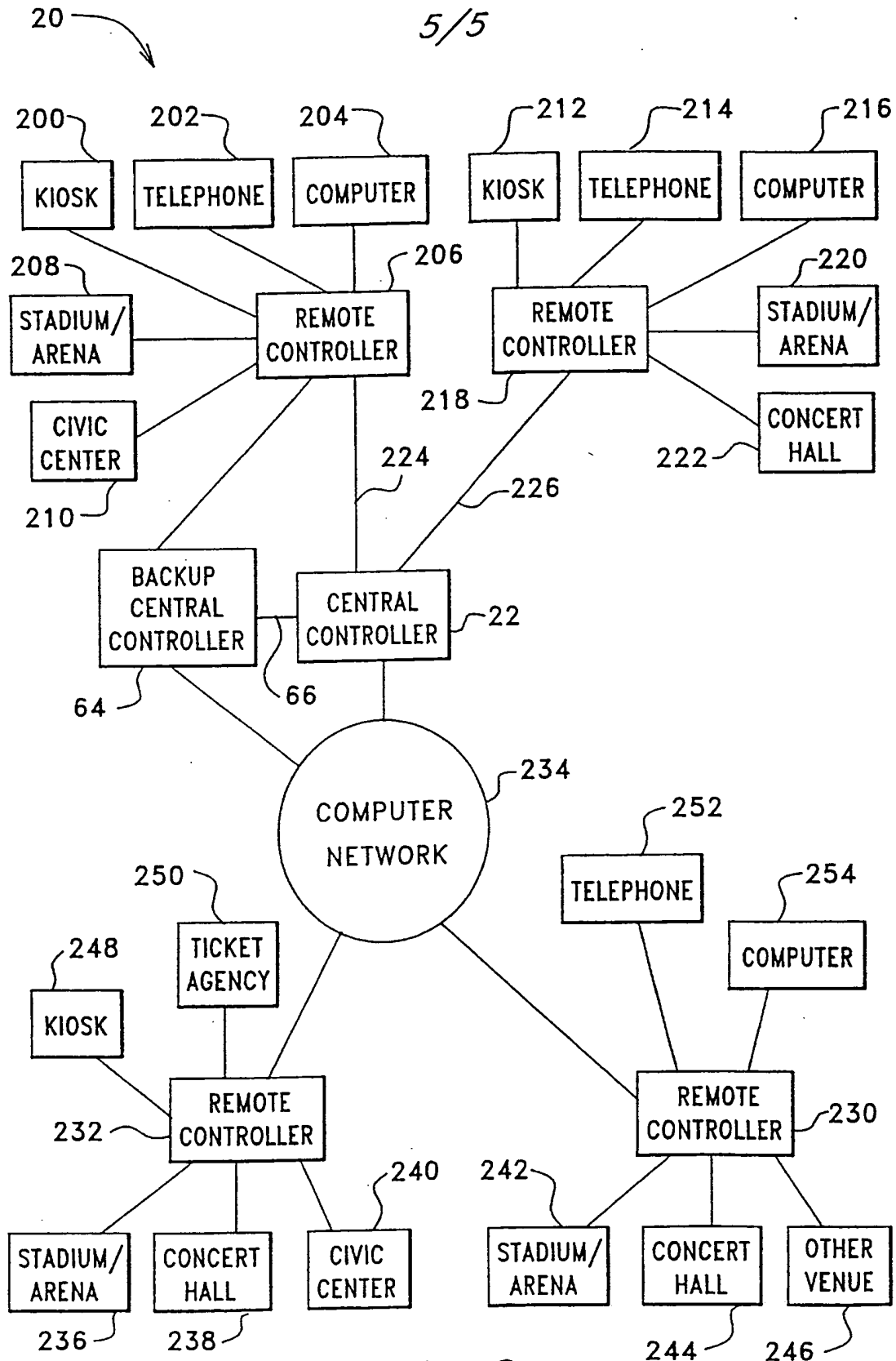


FIG. 5





## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US99/11362

<b>A. CLASSIFICATION OF SUBJECT MATTER</b> IPC(6) : GO6F 17/00, GO7F 7/00 US CL : 364/479.05, 479.01, 479.02 According to International Patent Classification (IPC) or to both national classification and IPC		
<b>B. FIELDS SEARCHED</b> Minimum documentation searched (classification system followed by classification symbols) U.S. : 364/479.05, 479.01, 479.02 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) GPIC 705/CLAS AND (CONTROL### (P) (DISTRIBUTED OR CENTRAL OR NETWORK)) AND SALE AND (RESALE OR RE-SALE)		
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 3,890,599 A (SIMJIAN) 17 June 1975 (17/06/75), see entire document.	1-7
A	US 4,949,256 A (HUMBLE) 14 August 1990 (14/08/90), see entire document.	1-30
A, P	US 5,896,298 A (RICHTER) 20 April 1999 (20/04/99), see entire document.	1-30
A	US 4,109,238 A (CREEKMORE) 22 August 1978 (22/08/78), see entire document.	1-30
A, P	US 5,845,265 A (WOOLSTON) 01 December 1998 (01/12/98), see entire document.	1-30
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex.		
* Special categories of cited documents: "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier document published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family	
Date of the actual completion of the international search 15 JULY 1999		Date of mailing of the international search report <b>10 SEP 1999</b>
Name and mailing address of the ISA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703) 308-0552		Authorized officer WILLIAM E. TERRELL <i>Diana Smutek</i> Telephone No. (703) 308-1113